

SEMIANNUAL RISK PERSPECTIVE

FROM THE NATIONAL RISK COMMITTEE



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ABOUT THIS REPORT

The Office of the Comptroller of the Currency (OCC) charters, regulates, and supervises national banks and federal savings associations and licenses, regulates, and supervises the federal branches and agencies of foreign banking organizations (banks).¹ The OCC supervises these banks to ensure they operate in a safe and sound manner, provide fair access to financial services, treat customers fairly, and comply with applicable laws and regulations.

The OCC's National Risk Committee (NRC) monitors the condition of the federal banking system and identifies key risks. The NRC also monitors emerging threats to the system's safety and soundness and ability to provide fair access to financial services and treat customers fairly. NRC members include senior agency officials who supervise banks of all sizes and develop bank supervisory policy. The NRC meets quarterly and issues guidance to examiners that provides perspective on industry trends and highlights issues requiring attention.

The OCC's Semiannual Risk Perspective addresses key issues facing banks, focusing on those that pose threats to the safety and soundness of banks and their compliance with applicable laws and regulations. This spring 2022 report presents data in five main areas: the operating environment, bank performance, special topic, trends in key risks, and supervisory actions. The report reflects data as of December 31, 2021, unless otherwise indicated.

The OCC welcomes feedback by email: NRCReport@occ.treas.gov.

Throughout this report, the term "banks" refers collectively to national banks, federal savings associations, and federal branches and agencies.

EXECUTIVE SUMMARY

KEY TAKEAWAYS

- While banks continue to navigate the operational and market-related effects of the pandemic and substantial government stimulus, current geopolitical events have led to tightening financial conditions and increasing downside risk to economic growth.
- Banks' financial condition remains strong and positioned to deal with the economic headwinds arising from geopolitical events, higher interest rates, and increased inflation.

KEY RISK THEMES



Bank financial performance faces challenges from inflation, a rising interest rate environment, and other factors related to the pandemic and geopolitical events.



OPERATIONAL RISK is elevated as banks respond to an evolving and increasingly complex operating environment. Geopolitical tensions have elevated cyber risks globally.



COMPLIANCE RISK is heightened as banks navigate the current operational environment, geopolitical risks, regulatory changes, and policy initiatives.



CREDIT RISK remains moderate, with some areas of weakness and potential longer-term implications resulting from the pandemic as well as direct and indirect effects of the Russian invasion of Ukraine.



Across key risk areas, banks are experiencing challenges retaining and replacing staff, especially those with specialized experience, due to increasing turnover. During this period of increasing volatility, these staffing challenges present increased risks.

Interest rate increases and efforts to address inflation concerns pose increasing risk to banks' investment portfolio valuations, noninterest income sources, and deposit stability. Bank management should understand and maintain vigilance on how a rising rate environment could impact the risk profile. Investment portfolios are at risk of depreciation as rates rise, particularly portfolios where duration was extended over the last two years to offset net interest margin (NIM) compression.

Operational risk is elevated. Cyber threats are elevated and continue to evolve, with an observed increase in attacks on the financial services industry. The current geopolitical situation further heightens the importance of cyber threat monitoring and effective defensive capabilities. Banks' increasing reliance on third-party relationships, development and adoption of innovative products, services, and technologies, and ongoing changes to banks' staffing and the operating environment increase operational risk.

Compliance risk remains heightened. Banks are navigating the complexity of sanctions imposed in response to the Russian invasion of Ukraine. At the same time, the OCC has observed an increase in the competition for compliance subject matter experts, at both the bank management and staff levels. In addition, banks continue to manage the impact of forbearance programs and the elevated volume of customers on deferred payment and loss mitigation programs. Supervisory focus remains on fair lending risk identification and management, regulatory changes, and policy initiatives.

Overall credit risk remains moderate and problem loan levels remain manageable. Loan portfolios have been resilient, and widespread credit deterioration has not materialized due to improvements in economic activity, lingering benefits from pandemic-related government actions and relief programs, and prudent bank risk management. The near-term outlook for credit quality is positive, as gross domestic product (GDP) is forecasted to remain strong in the near term and unemployment is below historical averages. Some uncertainty exists, concerning the medium- to long-term impacts of inflation and the war in Ukraine, especially the impacts on global commodities markets, as well as the interest rate environment.

CLIMATE-RELATED FINANCIAL RISKS

The OCC is committed to proactive and risk-based supervision of climate-related financial risks facing banks. The OCC views climate-related financial risks as raising significant risk management issues due to their impact on bank safety and soundness and financial stability. Recent OCC climate-related activities include:

- Publishing draft "Principles for Climate-Related Financial Risk Management for Large Banks" (Principles) for feedback;
- Completing a range-of-practice review of climate-related risk management practices at the largest banks;
- Participating in establishing the Financial Stability Oversight Council's Climate-Related Financial Risk Committee and associated working groups;

- Participating in climate risk-related Basel initiatives and the Network for Greening the Financial System's working groups; and
- Engaging with other agencies, including bank supervisors, and other stakeholders, including the public, on climate-related financial risk.

As reflected in the Fall 2021 *Semiannual Risk Perspective*, the OCC published for comment in December 2021 draft Principles designed to support climate-related financial risk identification and management by banks with more than \$100 billion in total consolidated assets. The comments received are currently being considered.²

If adopted in final form, the Principles would provide a basis for the development of future supervisory expectations with respect to climate-related financial risk management.

The OCC will continue to monitor the development of climate-related financial risk management frameworks at large banks. Current information-gathering indicates that these banks are in the early stages of building out their frameworks. OCC large bank examination teams will integrate the examination of climate-related financial risk into supervision strategies and continue to engage with bank management to better understand the challenges banks face in this effort, including identifying and collecting appropriate data and developing scenario analysis capabilities and techniques. As banks' climate-related financial risk management practices continue to evolve, bank management should continue to ensure that their public statements about their institutions' climate risk management efforts are consistent with their institutions' actions. OCC supervisory activities at these large banks will focus on safety and soundness considerations and integration of climate-related financial risk into bank risk management frameworks.

Midsize and community banks are starting to consider the implications of climate-related financial risks based on products, geographies, or other potential concentrations.

The OCC continues to conduct additional outreach, including hosting in June a <u>Symposium on Climate Risk in Banking and Finance</u>. The academic- and research-focused papers that were reviewed at the symposium include topics related to reporting and disclosure, physical and transition risk transmission channels, and the impact on financial institutions, climate risk exposure and bank lending, scenarios design and analysis, and green design.

The Federal Deposit Insurance Corporation (FDIC) published a proposed Statement of Principles for Climate-Related Financial Risk Management for Large Financial Institutions on April 4, 2022. 87 Fed. Reg. 19507. Comments on the FDIC proposal were due on June 3, 2022. OCC staff also are reviewing the public comments submitted to the FDIC.

PART I

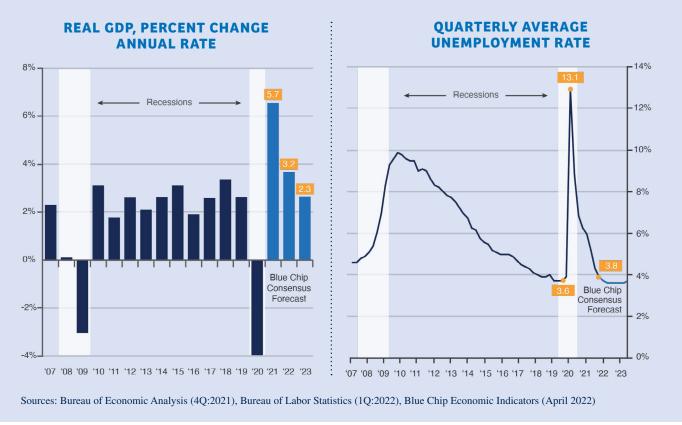
OPERATING ENVIRONMENT

THE RUSSIAN INVASION OF UKRAINE ADDS DOWNSIDE RISK TO ECONOMIC GROWTH

The U.S. economy grew by 5.7 percent in 2021 as widespread vaccinations, removal of COVID-19 restrictions, and substantial fiscal stimulus unleashed a wave of consumer spending. Job growth was strong throughout the year, with nearly 4 million jobs added. But last year's strong growth occurred amid a still active pandemic, which created frictions and dislocations in the economy that will continue to impact growth in 2022. At the end of last year, the labor market remained extremely tight, with businesses forced to raise wages to attract workers. Strong demand for goods continued to strain global supply chain capacity, keeping business back orders elevated and supplier deliveries slow. Given these pressures, inflation rose by the fastest rate in 40 years. Despite these challenges, real GDP grew at a rapid 6.9 percent annual rate in the fourth quarter of 2021. But the Blue Chip Consensus (Consensus) outlook is for slower real GDP growth in 2022.

Russia's invasion of Ukraine in February negatively impacted the economic outlook. Most economists expect the U.S. economy to slow modestly due to limited direct economic connections with both countries. The pre-conflict February Consensus forecast was that real GDP would grow by 3.7 percent in 2022. In April, the Consensus forecast dipped to 3.2 percent, a decline of 50 basis points. See figure 1. However, uncertainty remains high and risks have increased. If the conflict escalates or continues into 2023, growth could slow more than currently projected.

FIGURE 1: REAL GDP FORECAST—SOLID BUT SLOWER GROWTH IN 2022

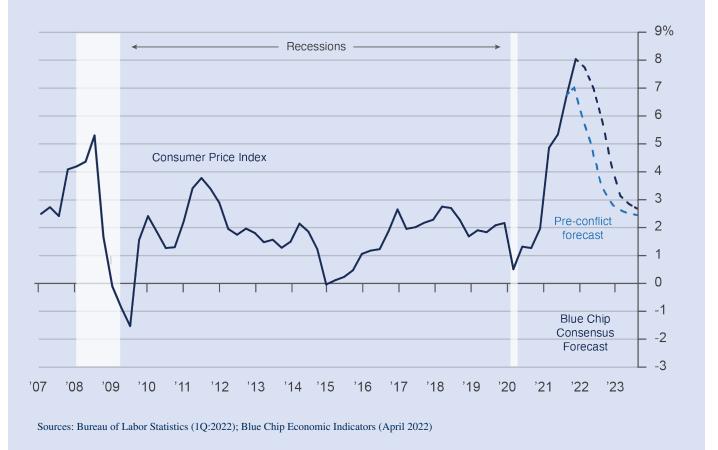


Even without an escalation, the conflict is likely to result in higher inflation. Russia and Ukraine are large exporters of energy, metals, and agricultural commodities. The anticipated loss of these exports from global markets caused commodity prices to surge, with the Brent oil price reaching \$130 per barrel in mid-March. The increases in commodity prices, especially energy prices, are expected to cause higher and more protracted U.S. inflation than previously projected. Pre-conflict, the Consensus forecast projected the year-over-year percent change in the Consumer Price Index would peak at 7 percent. The April forecast has inflation peaking at 8.0 percent. See figure 2. Despite this increase, the Consensus forecast continues to expect inflation to decline over the next two years under the assumption that supply chain and labor supply problems eventually resolve, and higher interest rates slow expenditures. But uncertainty exists with this forecast. Supply chain bottlenecks could intensify from the economic fallout of the Russian invasion of Ukraine. Other sources of inflationary pressure could emerge from higher consumer and business inflation expectations, or if a wage-price spiral develops from inflation exceeding wage growth. These pressures have the potential to cause inflation to become entrenched and remain high throughout the year.

The Federal Reserve embarked on monetary tightening in its March meeting with a 25-basis-point increase in the federal funds rate and introduced an additional 50-basis-point increase in May, the first rate hikes in three years. The Federal Reserve also concluded its tapering program and signaled its intent to raise the federal funds rate significantly by the end of the year. Higher interest rates increase borrowing costs and slow purchases of items that often require financing, such as homes, cars, and appliances, which in turn slows economic growth. Markets appear to believe that the aggressive tightening cycle outlined by the central bank will make it difficult to successfully slow inflation without sharply slowing growth, as indicated by the 10-year 2-year Treasury note spread that fell sharply in March.

FIGURE 2: INFLATION FORECAST TO SLOW IN 2022





RESIDENTIAL REAL ESTATE

Residential real estate values continue to rise, albeit at a slightly slower pace than in 2021. See figure 3. According to Black Knight Financial, the average single-family home value rose nearly 19 percent in 2021, the highest annual appreciation since the data collection began in 1992. Average quarterly home price growth peaked during the second quarter of 2021 at 20 percent, before moderating slightly in the third and fourth quarters. As of December 2021, the average single-family home was worth 33 percent more than before the onset of the COVID-19 pandemic, with all but one county registering price gains. Several counties in Idaho, Colorado, New Mexico, and on the west coast of Florida saw home prices grow by 50 percent or more. Broad-based home price appreciation is the result of several short- and long-term factors. A surge in building costs combined with supplies of homes for sale at near record lows are increasing prices in the short term. At the same time, the expiration of mortgage forbearance programs has not significantly increased foreclosures or distressed sales, which could exert downward pressure on home prices. However, longer-term factors, including millennials aging into home buying and more than a decade of below-trend homebuilding, are expected to influence continued price growth.

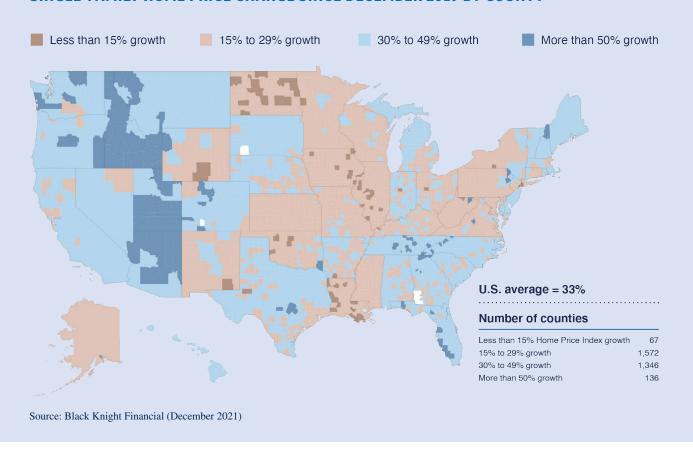
FIGURE 3: HOME PRICES HAVE APPRECIATED RAPIDLY

QUARTERLY AVERAGE U.S. SINGLE-FAMILY HOME PRICE, YEAR-OVER-YEAR PERCENT CHANGE



Source: Black Knight Financial (December 2021)

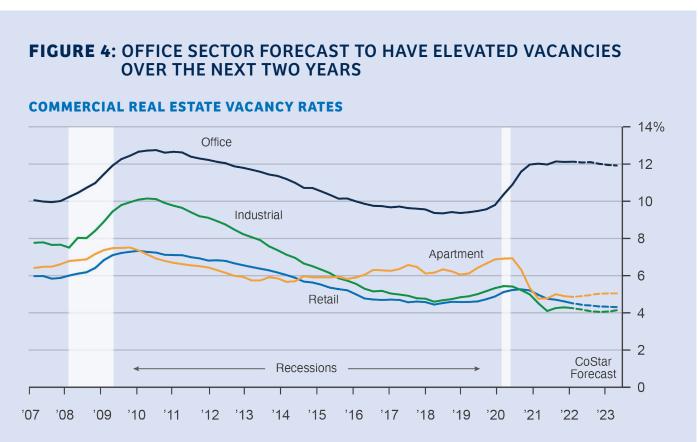
SINGLE-FAMILY HOME PRICE CHANGE SINCE DECEMBER 2019 BY COUNTY



MOST COMMERCIAL REAL ESTATE SECTORS STABILIZED IN 2021

Adverse impacts from the pandemic have subsided for commercial real estate (CRE) as most property types experienced improving vacancy rates throughout the year. See figure 4. While office market vacancy rates remain at elevated levels, the sector stabilized in the second half of the year and demand for office space turned positive in many major metro areas. The retail sector rebounded in 2021 amid strong economic growth. Similarly, national hotel occupancy improved significantly and is approaching pre-pandemic levels. Despite these gains, retail establishments and higher-end hotels in many urban settings remain challenged due to their reliance on office workers and business travelers, respectively. Strong demand for multifamily apartments caused vacancy rates to fall to a record low level.

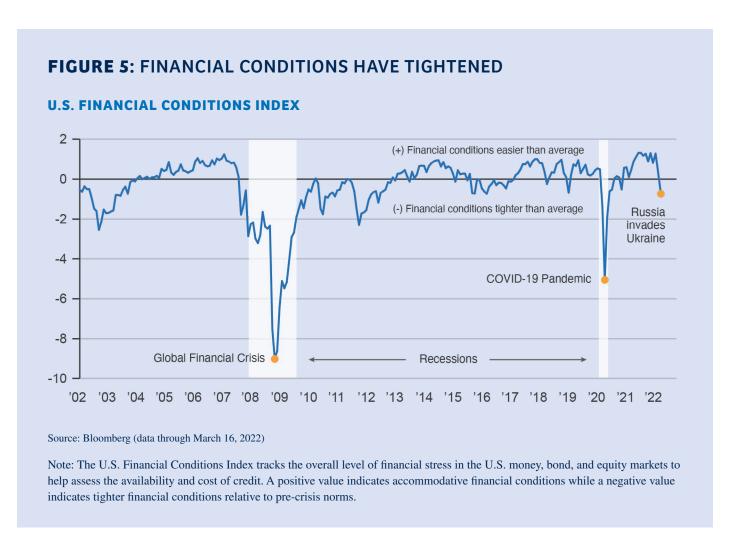
The outlook for CRE for most major sectors is positive but remains dependent on how economic growth reacts to a rising interest rate environment and high commodity prices. The outlook for the office sector is highly uncertain amid a shift to increased telework, and vacancy rates are forecast to remain at elevated levels through 2023. Retail and hospitality properties that support the office segment are dependent on how quickly and the degree to which office workers and business travelers return to pre-pandemic activities. Multifamily and industrial asset valuations resumed strong growth in 2021, which could push already low capitalization rates even lower. This raises the risk of overly optimistic valuations as investors reach for yield. Properties most at risk of a sustained drop in income and asset values are offices, hotel, and retail establishments in urban locations or that cater to business travelers.



Source: CoStar Portfolio Strategy (historical data through 4Q:2021, baseline forecast updated January 2022)

FINANCIAL CONDITIONS HAVE TIGHTENED

Financial conditions tightened in 2022 with less supportive fiscal and monetary stimulus and increased risks to the economic recovery. See figure 5. Geopolitical risks from the Russian invasion of Ukraine, supply chain disruptions, higher inflation, and tailwinds from pandemic-related public health measures weighed on sentiment and financial market prices. The Federal Reserve remained accommodative but raised interest rates in March and May and ended asset purchases (excluding reinvestment of principal payments). Policymakers communicated that short-term interest rates will rise and asset purchases will continue to decline in the coming few quarters. The pace of economic growth and inflationary pressures are both expected to slow in the second half of 2022. As a result, rates on longer-maturity Treasury bonds rose less than shorter-maturity notes, and the yield curve flattened.



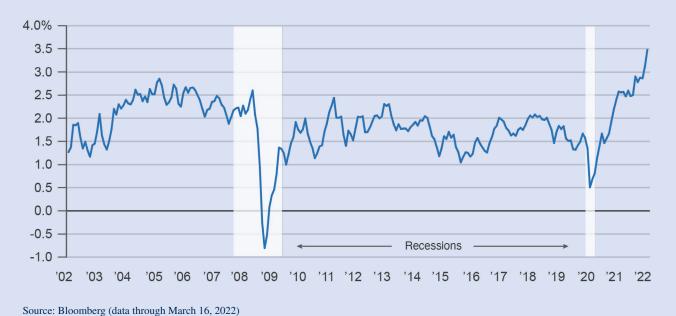
U.S. Treasuries and fixed-income assets experienced less favorable funding conditions on the heels of record issuance and higher interest rates. Measures of Treasury market volatility rose significantly as market participants priced higher uncertainty. In wholesale markets, repo and U.S. dollar funding market liquidity remained near pre-pandemic levels, and the standing Federal Reserve facilities should ensure ample liquidity and market functioning.

Equity and corporate fixed-income market prices moved lower on geopolitical risks, inflation uncertainty, and expectations for slowing growth. Other measures of financial conditions further tightened as risk asset prices fell into a correction after reaching all-time highs in the second half of 2021. Credit risk pricing increased from low levels as global central banks outlined plans to withdraw monetary stimulus. Surveybased and market-based inflation expectation measures moved higher since September. See figure 6. Economic participants expect higher inflation in the near term due to higher prices for energy and for goods and services resulting from pandemic-related disruptions. Equity market volatility, measured by the S&P 500 VIX Index, moved higher as geopolitical risks, inflation, and expectations for higher short-term interest rates increased uncertainty for corporate profits. Credit spreads widened alongside the downward move in equity markets. Investment-grade and high-yield corporate bonds continued to see record issuance through 2021 as borrowing costs and investor demand remained favorable. These trends have recently cooled as the outlook for higher interest rates and slower growth tempered investor demand for duration. There are several risks that may increase volatility in asset markets in the next few quarters, including a more aggressive reduction of accommodative monetary policy, pandemic-related developments, an increase in geopolitical risks, and inflation dynamics. As of March 2022, international equity indexes underperformed U.S. benchmarks over the past year.

FIGURE 6: HIGHER INFLATION DYNAMICS EXPECTED

Break-even inflation rates³ reach new highs as markets price higher inflation dynamics in the next few years from pandemic-related disruptions and geopolitical risks

U.S. TREASURY 5-YEAR BREAK-EVEN INFLATION RATE, PERCENT



The breakeven inflation rate represents a measure of expected inflation derived from Treasury Constant Maturity Securities.

PART II

BANK PERFORMANCE

BANKS ARE WEATHERING THE COVID-19 CRISIS WITH RESILIENCE, ALTHOUGH HEADWINDS FROM EXCESS LIQUIDITY, YEARS OF LOW INTEREST RATES, AND GEOPOLITICAL RISK REMAIN ON THE HORIZON

In large part due to the substantial monetary and fiscal support that was injected into the U.S. economy to support both households and businesses, the banking system was resilient in 2021. Bank returns bounced back sharply, and asset quality remained stable as a result of the strong economic rebound and rapid improvement in the U.S. labor market. Longer-term implications of the quick K-shaped recovery, however, became more apparent as supply and demand imbalances, supply chain disruptions, and higher consumer price growth proved to be longer lasting. Russia's invasion of Ukraine in early 2022 introduced broad implications for commodity prices, inflation, and the Federal Reserve's path to normalizing interest rates and combating sustained higher price growth. For U.S. banks, although the direct exposure to Russia and Ukraine is limited (\$15.8 billion as of December 31, 2021), 4 indirect risks are broad and enforcement of sanctions that have been imposed by various countries will likely strain banks' compliance resources. 5

As shown in figure 7, return on equity was up significantly in 2021, exceeding its pre-COVID level for both the system, which is driven by the largest banks, and for banks with assets less than \$5 billion (hereafter referred to as community banks). As the economic outlook continued to improve, bank earnings rose sharply, driven primarily by the loan loss reserve releases (reserve releases) in response to unrealized losses and an improved credit outlook. Moreover, unique circumstances shaped by the pandemic created

Federal Financial Institutions Examination Council, <u>E.16 Country Exposure Lending Survey and Country Exposure Information Report</u>, (December 31, 2021).

White House Fact Sheet, "United States, European Union, and G7 to Announce Further Economic Costs on Russia" (March 11, 2022).

opportunities for banks to generate revenue from fees associated with participation in the Coronavirus Aid, Relief, and Economic Security (CARES) Act's Paycheck Protection Program (PPP), as well as a boost to noninterest income from sales of loans. As anticipated, however, with both of these temporary revenue streams waning as of the fourth quarter of 2021, the outlook remains reliant on banks managing expenses and NIM pressures and, for the banks with the greatest exposure, meeting compliance requirements to identify and freeze assets of over 300 oligarchs and companies targeted by U.S. sanctions on Russia. ⁶



As credit quality remained stable throughout 2021, reserve releases resulted in a substantial increase in net income compared with the previous year (refer to table 1). Provisions for the year were negative \$29.9 billion for the federal banking system as a whole (driven by the largest banks, which had also transitioned to the current expected credit loss (CECL) accounting standard in the first quarter of 2020) and only \$0.2 billion for community banks.

The large reserve releases more than offset a decline of 2.9 percent in net interest income for the system. Meanwhile, community banks saw a much different path with a 6.6 percent gain in net interest income, driven mostly by PPP loans that generate fees once loans are forgiven. Noninterest income also provided support to revenues for the system, driven in large part by loan servicing fees and other noninterest income

U.S. Department of the Treasury press release, "Treasury Sanctions Kremlin Elites, Leaders, Oligarchs, and Family for Enabling Putin's War Against Ukraine" (March 11, 2022).

on a year-over-year basis. A look at the most recent quarter annualized, however, shows a slowdown in noninterest income for both the system and community banks. As anticipated, this slowdown was driven primarily by a decline in net gains from loan sales, which were a strong source of growth earlier in the year.

Another shift over the last quarter has been the increase in noninterest expense and rising labor costs resulting from very tight labor market conditions across all industries, particularly in the financial sector (including banks). Community banks saw a greater rise in noninterest expense earlier in the pandemic, driven by accelerating salary and benefit costs per employee. This was in part due to industry-specific factors, such as greater participation in the PPP program or being actively involved in residential real estate lending. ⁷ In the fourth quarter of 2021, however, the largest banks saw a greater rise in salary and benefits costs per employee. This was driven by an increasingly tight labor market with rising demand for skilled labor among large banks and other competitors, such as non-depository financial institutions (NDFI) and financial technology companies (fintechs).

Reserve releases, which began in late 2020, will likely continue to moderate in the coming quarters and provide only a temporary boost to profitability. Fee income from PPP lending will also wane as the remaining PPP loans run off the books. Sustained profitability means banks should continue to manage expenses and maintain prudent loan growth in other segments of their portfolios.

TABLE 1: TRENDS IN BANK NET INCOME

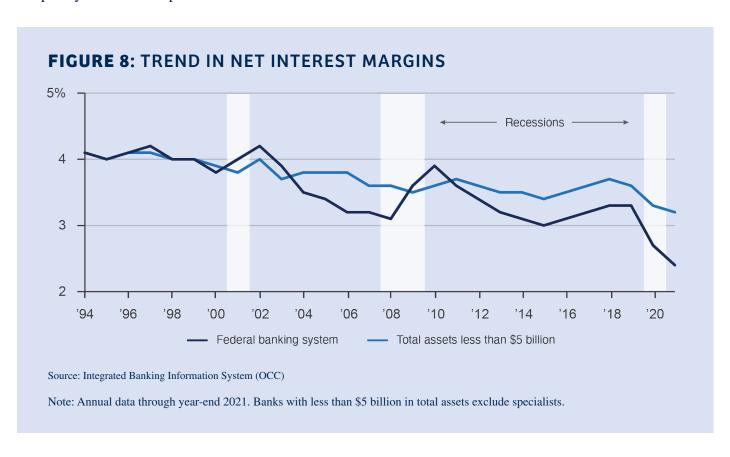
	Federal banking system						Banks with total assets of less than \$5 billion				
	2019	2020	2021	2020 to 2021 % change	4Q:2020 to 4Q:2021 % change	2019	2020	2021	2020 to 2021 % change	4Q:2020 to 4Q:2021 % change	
Revenues in billions of dollars											
Net interest income	364	337	328	-2.9%	3.2%	14.1	15.0	16.0	6.6%	6.3%	
Noninterest income	196	199	211	5.9%	2.5%	5.7	7.5	7.7	0.7%	-18.1%	
Expenses in billions of dollars											
Provisioning	41.0	98.8	-29.9	-130.3%	-913.0%	0.61	1.49	0.20	-86.4%	-71.5%	
Noninterest expense	322	336	342	1.8%	6.8%	13.6	14.9	15.6	4.8%	-0.6%	
Net income	158	87	182	109.8%	5.3%	5.0	5.3	6.5	23.0%	4.0%	

Source: Integrated Banking Information System (OCC)

Note: Data are merger-adjusted and held constant for banks in continuous operation from the first quarter of 2015 to the fourth quarter of 2021. Banks with less than \$5 billion in total assets exclude specialists.

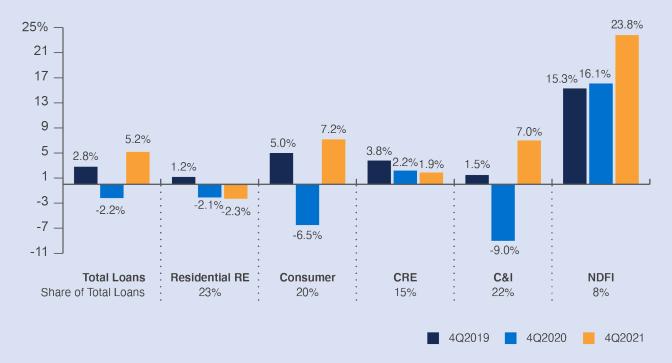
OCC, "Banks' Rising Labor Costs Partly Reflect Industry-Specific Factors" (January 2022).

Despite strong economic growth and an improved credit outlook, low interest rates continued to weigh on bank profitability in 2021. NIM continued to face pressure from both historically low interest rates and excess liquidity that has accumulated on bank balance sheets. Refer to figure 8. NIM, which continued to drift downward for banks of all sizes for the third consecutive year, is a significant driver of most banks' revenues and profits. For community banks, NIM declined by 9 basis points, to an all-time low of 3.2 percent. The drop in NIM for the federal banking system was more pronounced, driven by the largest banks, declining by 31 basis points, and setting a new low of 2.4 percent. In addition to the significant influx of lower-yielding assets from the Federal Reserve's continued quantitative easing, large banks saw a greater decline in NIM due to pricing effects, whereas small banks that were active in PPP lending saw some temporary relief in rate pressures.



Following the end of the PPP program in May 2021, traditional loan growth returned to the banking system in the second half of 2021. Excluding PPP loans from all the growth rates shown in figure 9, loan balances increased 5.2 percent for the system from year-ago levels. Consumer loans and commercial and industrial (C&I) loans, which combined make up 42 percent of total loans, increased by 7.2 and 7.0 percent, respectively. For community banks, loan growth accelerated to 6.6 percent, driven by an increase in CRE loans on the balance sheet, which make up 42 percent of their loan portfolios. For both the system and community banks, total loan growth was above 2019 levels, which helped revenues even if margins fell.

FIGURE 9: YEAR-OVER-YEAR CHANGE IN LOAN BALANCES, EXCLUDING PPP LOANS



Source: Integrated Banking Information System (OCC)

Note: Data are merger-adjusted and held constant for banks in continuous operation from the first quarter of 2015 to the fourth quarter of 2021. Banks with less than \$5 billion in total assets exclude specialists. RE is real estate and CRE is commercial real estate. CRE includes commercial mortgages and construction loans. Total and C&I loans exclude PPP loan balances from all time periods.

PART III

TRENDS IN KEY RISKS

A. OPERATIONAL RISK IS ELEVATED AS BANKS
RESPOND TO AN EVOLVING AND INCREASINGLY
COMPLEX OPERATING ENVIRONMENT

CYBERSECURITY

Operational risk remains elevated as cyber attacks evolve, become more sophisticated, and inflict damage to the U.S economy. Additionally, recent geopolitical tensions have further increased cyber risks and highlighted the importance of heightened threat monitoring, greater public-private sector information sharing, and safeguarding against disruptive attacks targeting the financial sector. Given increased operational risks, including risks from geopolitical threats, the Cybersecurity and Infrastructure Security Agency (CISA) published a "Shields-Up" web page (https://cisa.gov/shields-up) to promote awareness of current cybersecurity threats and mitigations. In this heightened threat environment, CISA has encouraged lower reporting thresholds on information sharing activities, testing of organizational response plans, and continued focus on business continuity and resilience.

Ransomware attacks have been observed impacting financial services. These attacks leverage phishing emails that target employees with the goal of compromising credentials to gain access to networks. After gaining access, the bad actors conduct ransomware and other extortion campaigns. An increase in distributed denial of service (DDoS) attacks has also been observed. Additionally, cyber actors continue to exploit publicly known and dated software vulnerabilities and weak authentication against broad target sets, including banks and financial service providers. To mitigate against cyber risks, it is important for banks to maintain heightened threat and vulnerability monitoring processes and implement more stringent security measures, including the use of multifactor authentication, hardening of systems configurations, and timely patch management. Banks should also consider how to effectively implement, regularly test, and isolate system backups from network connections to provide operational resilience.

The risk to supply chain management operations continues to increase and evolve as attacks target vulnerabilities in software systems commonly used by large numbers of organizations. Threat actors are

increasingly exploiting vulnerabilities in IT systems and third-party software to conduct malicious cyber activities while negotiating ransom payments. These attacks demonstrate the importance of banks assessing the risks emanating from their third parties, inclusive of the supply chain, and developing a comprehensive approach to operational resilience.

On November 23, 2021, the OCC, the Board of Governors of the Federal Reserve System, and the Federal Deposit Insurance Corporation (FDIC) published a final rule to establish computer-security incident notification requirements for banking organizations and their bank service providers. The rule requires a bank to notify the OCC as soon as possible and no later than 36 hours after the bank determines that a computer-security incident that rises to the level of a notification incident has occurred. The rule also requires a bank service provider to notify at least one bank-designated point of contact at each affected customer bank as soon as possible when it determines it has experienced a computer-security incident that has materially disrupted or degraded, or is reasonably likely to disrupt or degrade, covered services provided to the bank for four or more hours. Banks and bank service providers have been required to comply with the new rule since May 1, 2022. The OCC continues to expect banks to report breaches of sensitive customer information consistent with Supplement A to Appendix B to 12 CFR 30, "Interagency Guidance on Response Programs for Unauthorized Access to Customer Information and Customer Notice."

INNOVATION AND ADOPTION OF NEW PRODUCTS AND SERVICES

Banks continue to leverage new technology and innovative products and services to meet evolving operational needs, as well as customer demand and expectations. Examples of innovations include faster and real-time payment products, increased use of mobile and digital technologies to deliver financial services, application programming interfaces, data aggregation services, contactless payment devices, and distributed ledger technologies. New technology and innovation become the target for fraud, as fraudsters attempt to exploit new processes as they are implemented. Sound fraud risk management practices can help prevent losses when implementing new technology and innovative products and services. 8

While these products and services can offer many benefits to both banks and their customers, adoption of these new products, services, and delivery channels, as well as expanded relationships with fintechs and other entities, contribute to a complex operating environment. This increasing complexity warrants appropriate due diligence, change management, and risk management processes that reflect the bank's size, complexity, and risk profile, and account for and keep pace with the complexity of the new, modified, or expanded activity. ⁹ Examiners will continue to assess how banks are managing risks related to changes in operating environments driven by these innovations.

- 8 Refer to OCC Bulletin 2019-37, "Operational Risk: Fraud Risk Management Principles."
- 9 Refer to OCC Bulletin 2017-43, "New, Modified, or Expanded Bank Products and Services: Risk Management Principles."

Distributed ledger technologies and growing adoption of digital assets, such as crypto-assets and stablecoins, have broadened the universe of entities delivering banking and bank-like products and services and raised questions regarding the regulatory perimeter and financial stability. As innovative products continue to evolve, additional regulatory guidance is anticipated. Banks should ensure that they fully understand their risks and compliance responsibilities, and that customers are provided with clear disclosures on the risks of the new transactions, products, and services when engaging in these activities.

Banks may also develop additional or different controls to safeguard against fraud, financial crimes, violations of sanctions requirements and consumer protection and fair lending laws, and operational errors. Banks are challenged to maintain comprehensive operational resilience frameworks commensurate with the complexity of products, services, and operations being supported in this environment. Strategic planning and risk management processes should be sufficiently robust to manage, partner, or compete with new fintech entrants as needed.

THIRD-PARTY RISK MANAGEMENT AND OTHER OPERATIONAL RISKS

Third-party risk management continues to be an area of heightened supervisory focus. Before engaging with a third party, it is important for banks to conduct appropriate due diligence. The scope and depth of due diligence performed should be commensurate with the risks posed by each third-party relationship and the nature and criticality of the proposed activity. Similarly, third parties are subject to the same cyber and many other risks banks experience. It is important for banks to have a sound understanding of how third parties manage these risks.

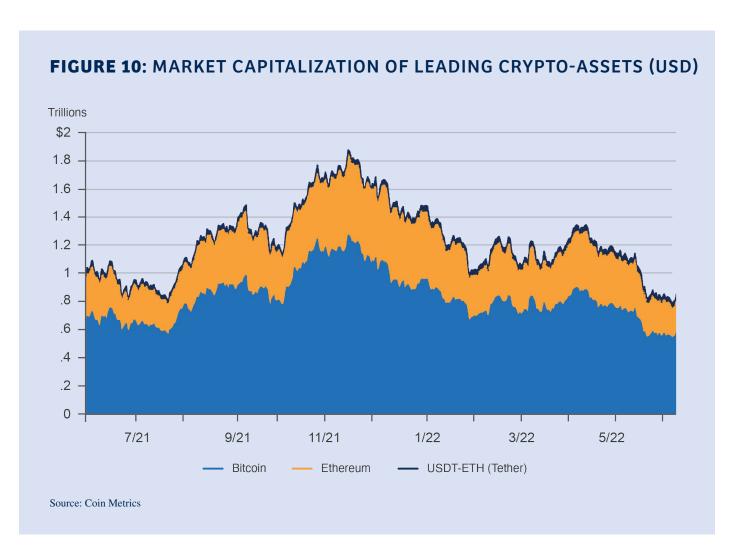
Other operational risks the banking industry has experienced are the result of significant change over the last two years in response to COVID-19. The ongoing evolution of federal, state, and local requirements requires banks to continue managing changes to their operating environments. The potential for increased merger and acquisition activity in an evolving operating environment also underscores the importance of effective governance and strong due diligence.

Recruiting and retaining talent with the desired level of knowledge and experience is a growing challenge in the banking sector. Similar to other industries, banks have been operating with a barbell staffing model for several years, with concentrations in junior- and senior-level personnel. These challenges are exacerbated by employees' desire for remote work or early retirements, in addition to resignations and retirements in the normal course of business. When combined with strong competition from both banks and nonbanks, retaining and attracting talent with the appropriate expertise is driving up bank personnel costs.

Operational risk is often a lagging indicator, and some of the risk exposure may manifest in the coming quarters. It is important for the industry to remain vigilant and fully assess its risk exposure.

DIGITAL ASSETS IN THE BANKING SECTOR

The financial sector has displayed increasing interest in opportunities related to digital assets as customer adoption of various crypto-assets dramatically increased. See figure 10. Expanding crypto-asset adoption has led to the creation of several crypto-related products and services, including providing crypto-asset custody services, facilitating access to third parties to buy and sell crypto assets, and crypto-based derivative products.



As with other new products, services, and delivery channels, crypto-asset products and services can create opportunities for banks and their customers. They can also amplify existing risks and introduce new risks. Accordingly, it is important for banks to conduct appropriate due diligence, including a risk assessment of the product or service and applicable service providers that will be supporting the activity, and ensure commensurate risk management processes. This work may include ensuring sufficient knowledge and expertise in the products and services and underlying technology, including financial, operational, compliance, strategic, reputational, and other risks. Crypto-assets, and the underlying technology, are still relatively new, as are the products and services being developed for users to engage with this asset class.

Additionally, banks should notify their supervisory office and seek OCC non-objection before engaging in certain crypto-activities. ¹⁰

To provide greater clarity with respect to digital assets and crypto-assets, the OCC continues to engage on an interagency basis to analyze various crypto-asset use cases. These efforts began with exploratory analysis to develop a common vocabulary of terms, understand use cases and risks, and identify potential policy and supervision considerations related to crypto-assets in the banking industry.

The OCC continues to collaborate with other agencies to provide further clarity on legal permissibility, as well as safety and soundness and compliance considerations related to crypto-assets.

The OCC is also working with financial sector regulators to better define regulatory frameworks for stablecoins. In November 2021, the President's Working Group on Financial Markets, the OCC, and the FDIC released a report and recommendation outlining the regulatory framework for stablecoins and pathways to address risks. ¹¹

B. COMPLIANCE RISK IS HEIGHTENED, DRIVEN BY REGULATORY CHANGES AND POLICY INITIATIVES THAT CONTINUE TO CHALLENGE BANK RISK MANAGEMENT

BANK SECRECY ACT/ANTI-MONEY LAUNDERING (BSA/AML) AND OFFICE OF FOREIGN ASSETS CONTROL (OFAC)

The Financial Crimes Enforcement Network (FinCEN) issued a <u>notice</u> to call attention to an upward trend in environmental crimes and associated illicit financial activity. Environmental crimes have a strong association with corruption and transnational criminal organizations. Combating corruption and transnational criminal organizations are among the priorities FinCEN announced in the Anti-Money Laundering and Countering the Financing of Terrorism National Priorities issued on June 30, 2021. Environmental crimes contribute to climate risk by threatening ecosystems, decreasing biodiversity, and increasing carbon dioxide in the atmosphere.

OCC Interpretative Letter 1179, "Chief Counsel's Interpretation Clarifying: (1) Authority of a Bank to Engage in Certain Cryptocurrency Activities; and (2) Authority of the OCC to Charter a National Trust Bank" (November 18, 2021).

Refer to press release, "President's Working Group on Financial Markets Releases Report and Recommendations on Stablecoins" (November 1, 2021) and accompanying report.

As experienced during the pandemic and recent natural disasters, fraud related to government relief programs is a significant risk. The potential for increasing frequency and scope of natural disasters also presents risks related to banks' business continuity planning. Banks are encouraged to consider the potential for environmental crime and other emerging financial crime risks in BSA/AML and OFAC risk assessments, staffing assessments, and long-term planning.

The U.S. Department of the Treasury's OFAC is implementing significant economic and trade sanctions imposed by the U.S. on numerous individuals and entities in response to Russia's invasion of Ukraine. These sanctions are complex and evolving. Financial institution management should assess the applicability and impact of sanctions on their institutions and customers, including the impact of sanctions imposed by both the U.S. and other countries on foreign branches, overseas offices, and subsidiaries. Financial institutions are encouraged to engage with their legal counsel or contact OFAC for additional guidance related to current and future sanctions as necessary.

In addition, FinCEN issued two alerts related to the Russia sanctions. The first <u>alert</u> advises all financial institutions to report any suspicious activity and be vigilant against potential efforts to evade the expansive sanctions and other U.S.-imposed restrictions implemented in connection with the Russian Federation's invasion of Ukraine. The second <u>alert</u> advises on the importance of identifying and quickly reporting suspicious transactions involving real estate, luxury goods, and other high-value assets of sanctioned Russian elites and their family members and associates. FinCEN also issued an <u>advisory on kleptocracy and foreign public corruption</u> more broadly, urging financial institutions to focus their efforts on detecting the proceeds of foreign public corruption, namely bribery, embezzlement, extortion, and the misappropriation of public assets.

CONSUMER COMPLIANCE

Effective change management and compliance risk management processes remain important to identify, measure, monitor, and control the evolving and emerging risks related to consumer products and services. Banks continue to manage the impact of forbearance programs and the elevated volume of customers on deferred payment and loss mitigation programs. Supervisory focus remains on fair lending risk identification and management, regulatory changes, and policy initiatives. In addition to operational and program challenges brought on by the response to the COVID-19 pandemic, many banks have increased their use of third-party relationships, including with fintechs, to introduce new products and services. These changes increase the level of compliance risk related to ensuring clear and appropriate disclosures, clearly defining ownership of compliance-related processes, and monitoring and testing controls, including complaint monitoring and post-implementation testing to ensure new products and services have been implemented as expected and disclosed.

Bank compliance functions also are experiencing challenges retaining and replacing staff. A lack of access to subject matter expertise may result in increased compliance and operational risks, particularly if existing

compliance processes, controls, testing, and training become subject to funding cutbacks or limitations, or if future compliance management program enhancements and maintenance are delayed.

Additionally, compliance and operational risk may increase or evolve if banks begin using, or expand use of, third-party relationships for support or to fill critical roles, especially if banks do not conduct appropriate due diligence on third parties or select inexperienced or unqualified third parties. Such risk also may increase if banks expand the use of telework either to remain competitive or retain employees; or if they hire from different geographical areas to fill openings.

COMMUNITY REINVESTMENT ACT/FAIR LENDING

In December 2021, the OCC rescinded the June 5, 2020 rule (June 2020 rule) implementing the Community Reinvestment Act (CRA) and replaced it with a revised CRA rule based on requirements in place prior to the June 2020 rule. To assist with these transitions, the OCC issued Bulletin 2022-4, "Community Reinvestment Act: Frequently Asked Questions Regarding the Final Rule to Rescind the OCC's June 2020 CRA Rule."

On May 5, 2022, the OCC, the Board of Governors of the Federal Reserve System, and the FDIC jointly issued a notice of proposed rulemaking to strengthen and modernize the CRA regulatory framework. ¹²

Additionally, recent fair lending supervisory efforts have focused on redlining risk identification and management and ensuring that banks are appropriately identifying, measuring, monitoring, and managing fair access to financial services.

C.

MAINTAINING DILIGENCE IN A RISING RATE ENVIRONMENT

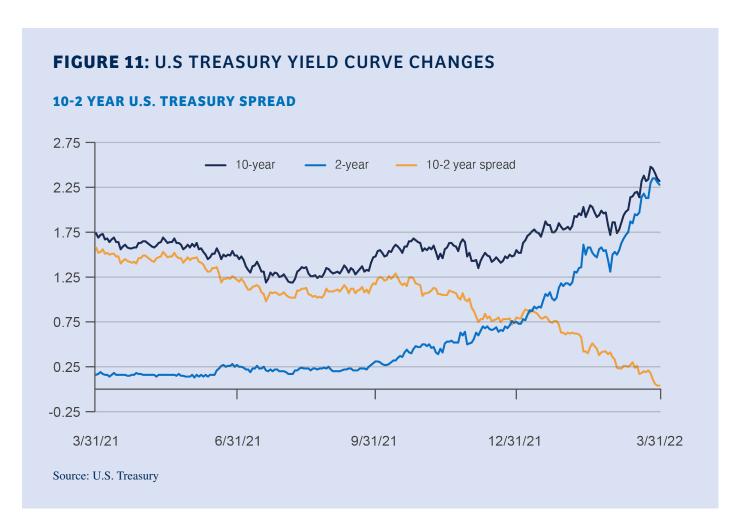
Federal Reserve balance sheet tapering, increasing geopolitical stress, higher Treasury yields, inflation concerns, and slowing economic growth pose increasing risk to banks' investment portfolio values, noninterest income sources, and deposit stability.

Banks' asset liquidity grew \$4.25 trillion (62 percent) between year-end 2019 and year-end 2021 due to an influx of deposits driven by government stimulus measures implemented to support economic recovery from the COVID-19 pandemic. To offset the dilutive impact this liquidity growth had on NIM, banks took strategic actions to improve yield that included increased credit risk and/or duration in investment portfolios. These actions resulted in an acceleration of the upward trend of long-term assets on banks' balance sheets.

¹² OCC News Release 2022-47, "Agencies Issue Joint Proposal to Strengthen and Modernize Community Reinvestment Act Regulations." The comment period closes on August 5, 2022.

Banks should understand and maintain diligence on how a rising rate environment could impact their risk profiles in light of inflationary concerns and an expected rising rate environment. Rising interest rates have significantly decreased and nearly erased unrealized gains in bank investment portfolios. Banks that increased investment portfolio duration to offset NIM compression are likely to continue experiencing declining portfolio valuations as rates and yields rise.

While one- and three-month yields have ticked up but remain low, the 10-year to 2-year U.S. Treasury yield spread continues to tighten. See figure 11. This spread declined from 154 basis points as of March 31, 2021, to 4 basis points as of March 31, 2022. If this flattening trend continues as the Federal Reserve implements rate hikes, banks that fund longer-term assets with liabilities on the shorter end of the curve may not experience the net interest income (NII) improvement typically expected in a parallel increasing rate environment.



Another scenario that could arise from rate hikes is a bear flattener scenario, in which short-term yields rise faster than long-term yields, resulting in a flattening of the yield curve. Interest rate risk data on OCC-supervised midsize and community banks provide some insight into potential impacts on NII from this yield curve scenario. The OCC's review of this data from a sample of about 100 banks shows that roughly 60 to 70 percent of these institutions generate less net interest income in a bear flattener scenario (in which

short-term rates rise faster than longer-term rates) than in immediate +100 and +200 basis point parallel scenarios, respectively. Further, in approximately one-third of these institutions, NII declines in a bear flattener scenario compared with increasing NII in upward parallel scenarios. Whether these forecasts come to fruition in an increasing rate environment will depend significantly on the accuracy of deposit beta assumptions. Historic levels of liquidity on balance sheets could allow banks to take a slower approach to increasing deposit rates as the Federal Reserve increases rates, at least in the short term. While the substantial run-up in liquidity experienced by banks during the COVID-19 pandemic could soften impacts to funding costs from rate hikes, the uncertainty surrounding surge deposits and their behavior in an increasing rate environment warrants close monitoring.

SURGE DEPOSITS AND CONTINGENT FUNDING PLANNING

Deposit levels remain high and continue to grow. The industry has maintained deposit inflows since the onset of the pandemic despite continued low deposit rates. There remains significant uncertainty as to how depositors will behave once short-term market rates begin to increase. Some banks have begun to consider some of these deposits more stable and less sensitive to interest rates given the lack of runoff. However, reversal of fiscal stimulus, an increase in deposit substitutes, and increased economic development and business investment may drive a decline in deposits. Banks should model various interest rate risk and liquidity scenarios to assess the impacts to earnings and liquidity from changes in deposit levels and pricing. Banks should also revisit contingency funding plans and ensure that contingent funding sources, including those from the wholesale market, are available if material and unanticipated deposit runoff occurs.

GEOPOLITICAL EVENTS

Geopolitical events related to Russia and Ukraine may have secondary impacts on bank balance sheets and performance. For banks with large trading operations, volatility in certain commodity markets has increased initial margin requirements and could lead to additional margin calls by central counterparties (CCP). Central counterparty margin models require additional initial margin during periods of high market volatility. This was also illustrated during the onset of the COVID-19 market disruption in March 2020, when CCPs called for additional initial margin due to volatility across several asset classes, particularly equities. In addition to impacting bank liquidity, increased counterparty margin requirements may also cause bank customers to use deposits or draw on credit lines to meet the additional margin requirements.

REFERENCE RATE TRANSITION

In March 2022, the Consolidated Appropriations Act of 2022 was signed into law and included the Adjustable Interest Rate (LIBOR) Act. The LIBOR Act establishes a uniform benchmark replacement process for financial contracts that do not contain clear fallback provisions and that mature after the cessation of LIBOR. Banks should assess and update reference rate transition plans given impacts from the new law while continuing to work toward reference rate transition as we enter the final year preceding full

LIBOR cessation. Contracts that extend beyond June 30, 2023, should be identified and banks should now be progressing toward identifying and addressing insufficient fallback language in those contracts.

The OCC continues to communicate that a bank may use any reference rate for its loans that the bank determines to be appropriate for its funding model and customer needs. ¹³ While not endorsing any specific rate, the OCC expects the replacement alternative reference rate to be robust and remain robust (i.e., compliant with International Organization of Securities Commissions principles) through times of stress. The robustness of a reference rate will depend on multiple factors, including whether the underlying data are sufficiently long and reflect the competitive forces of supply and demand; the methodology is sufficiently transparent to allow for independent rate confirmation; and the market for financial instruments that use the rate is sufficiently deep and liquid enough to allow the bank to manage associated market risks. The OCC will continue to monitor bank efforts to transition away from LIBOR to alternative reference rates.

D. CREDIT RISK IS MODERATE, WITH SOME AREAS OF WEAKNESS

COMMERCIAL CREDIT

Significant growth in nonfinancial corporate debt preceded the pandemic, and many companies added leverage in the past year for general operations or expense management. Highly leveraged borrowers are particularly vulnerable as their financial flexibility to respond to these adverse changes is limited. Prolonged inflation that leads to significantly higher interest rates or rate shocks will increase costs for commercial and retail borrowers. These events could alter business and consumer spending, impact bank credit quality, or curtail loan growth.

Given this period of increased volatility, banks should assess the potential impact of macro events on loan portfolios. As part of a bank's risk management practices, processes and procedures should be in place to understand potential vulnerabilities within loan portfolios posed by the high level of inflation. Processes and procedures may include stress testing vulnerable segments or concentrated exposures as well as employing risk mitigation activities such as increased portfolio monitoring, adjusting underwriting standards, selling or hedging assets, and recognizing risks within the allowance for credit losses. Stress testing scenarios should also be commensurate with the complexity of credit products. Despite current talent pressures, it is important for banks to maintain adequate staffing of credit underwriting and control functions.

Direct commercial credit exposure associated with the Russian invasion of Ukraine is low. Direct exposures to Russian corporations and banks are limited, as are trading, cross-border clearing, and

¹³ Refer to OCC Bulletin 2021-48, "Joint Statement on Managing the LIBOR Transition," and OCC Bulletin 2021 46, "LIBOR Transition: Updated Self-Assessment Tool for Banks."

settlement activities. Banks materially reduced exposures in response to international sanctions and substantially reduced operations in Russia. Secondary exposures through energy and commodity companies and utilities in Europe, the Middle East, and Africa are a greater concern but are considered manageable, as these companies and utilities are generally highly rated with ample liquidity.

While CRE loan performance stabilized, certain CRE subsectors warrant continued attention, including hospitality, retail, and office properties. Properties located in urban business districts are particularly challenged due to reduced business travel and changing consumer and business preferences. Vacancy rates for the largest metro markets are near record highs and increased availability continues due to rising sublet and construction volumes. Non-office real estate that underpins retail and other small businesses relying on consumer traffic face reduced cash flows and increasing vacancy as return-to-work plans evolve. Major corporations continue to contemplate new operating postures (in-person, hybrid, or remote), making it challenging to forecast the long-term outlook.

CRE remains a significant concentration in many OCC-supervised midsize and community banks, and the number of banks exceeding the thresholds in the CRE concentration guidance has increased for the first time in several quarters. In the current environment, borrower risk is even more idiosyncratic depending on customer base, geography, employee work flexibility, business resilience, and divergence from patterns observed in prior downturns. In addition to rental rates and lease expirations, increasing interest rates may draw banks' attention to interest-only structures and CRE property valuations.

Newer loan products as well as the increasing use of technology, such as artificial intelligence and blockchain smart contracts, require sound risk management oversight. Banks are expected to continue to establish and implement prudent underwriting standards that fully assess repayment sources and ensure internal control functions remain appropriate to identify, measure, monitor, and control the associated risk regardless of loan product.

RETAIL CREDIT

The performance of retail and mortgage portfolios exceeded expectations during the height of the COVID-19 pandemic, with past-due loans and losses at or below pre-pandemic levels. Performance was driven by prudent underwriting before the pandemic, management's risk mitigation efforts, and an unprecedented level of federal, state, and local stimulus. The near-term outlook for credit quality remains positive. There are no observable existing threats to retail and mortgage credit quality. However, economic headwinds have emerged that could pose risks to future retail and mortgage performance.

Most households are experiencing the impact of rising prices as inflation currently exceeds wage growth. The most vulnerable segments of households are those who are on a fixed income, or who have highly leveraged loans. Borrowers with variable-rate debt are also more vulnerable to direct and indirect inflation impacts than those with fixed-rate mortgages and fixed debt payments. As part of a bank's risk management practices, processes and procedures should be in place to identify, measure, monitor, and control the potential vulnerabilities within loan portfolios posed by the high level of inflation. Among

other risk management tools, management should consider stress testing vulnerable segments and employing risk mitigation strategies that appropriately increase portfolio monitoring, adjust underwriting standards, sell and/or hedge assets, and recognize risks within the allowance for credit losses.

With most banks loosening retail and mortgage underwriting standards that were proactively tightened during the height of the pandemic, it is important for management to closely guard against complacency in underwriting practices. This would include monitoring the potential impacts on credit quality from changes in market conditions, such as elevated asset valuations, the impact of inflation on borrowers' disposable income, and an increasing interest rate environment.

There remains a segment of highly impacted households in mortgage forbearance programs that may be subject to heightened levels of attention. Since September 2021, there has been a notable decline in the level of mortgage loans in forbearance, which, as of February 2022, total almost 800,000, representing approximately 1.5 percent of the total number of mortgage loans in the industry. OCC examiners will evaluate management's actions implementing processes, procedures, and systems to promote compliance with the CARES Act as the remaining segment of mortgage borrowers reach the end-of-relief periods. During this period, the industry has observed an increase in foreclosure starts; however, the number of starts remains 20 percent below pre-pandemic levels. The extension of the COVID-19 emergency in February 2022 means that eligible borrowers with federally backed mortgages have more time to request forbearance if they are facing a COVID-related hardship. Foreclosures are expected to rise with the expiration of the federal foreclosure moratoriums for borrowers who are not eligible for loan modification options. With the notable increase in home price appreciation, losses resulting from executing a deed-in-lieu, short sale, or foreclosure are expected to be manageable, with many at-risk borrowers having sufficient equity in their property.

CECL IMPLEMENTATION

The January 1, 2023, CECL implementation time frame for community banks is quickly approaching. Most banks should be in the advanced stages of implementation. While resources may have been diverted to address pandemic-related issues, it is important that there is sufficient time to identify and address model deficiencies.

SUPERVISORY CONCERNS

The OCC primarily communicates supervisory concerns to a bank's board and management in the form of matters requiring attention (MRA). MRA concerns include practices that deviate from sound governance, internal control, or risk management principles, and have the potential to adversely affect the bank's condition, including its financial performance or risk profile, if not addressed, or result in substantive noncompliance with laws or regulations, enforcement actions, or conditions imposed in writing. Figure 12 shows the composition of outstanding MRA concerns.

